

PATENT
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Applicant:	Yaffe et al.	Confirmation No.:	5853
Serial No.:	10/713,978	Art Unit:	1656
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Customer No.:	21559		
Title:	COMPUTER COMPRISING ATOMIC COORDINATES OF A PLK-1 POLO-BOX DOMAIN AND USES THEREOF (as amended)		

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PROPOSED CLAIM AMENDMENTS

Applicants submit the following unofficial draft claim amendment for discussion purposes only.

PROPOSED AMENDMENTS TO THE CLAIMS

1. A method for displaying a three-dimensional model of a Polo-box domain of a Plk-1 Polo-like kinase, said method comprising: A computer comprising a processor in communication with a memory; said memory having stored therein

(i) providing structural coordinates of said Polo-box domain sufficient for modeling binding of a candidate compound to the phosphopeptide binding pocket of said Polo-box domain, said structural coordinates comprising at least one set of x, y, and z atomic coordinates from Table 5, or a mathematical modification of Table 5 that preserves the relative three-dimensional relationships among the coordinates of Table 5, from a given atom of each of residues His-538, Lys-540, Trp-414, and Leu-491 of a said Polo-box domain of a Plk-1 Polo-like kinase, or a set of x, y, and z atomic coordinates that have a root mean square deviation of said set of x, y, and z atomic coordinates of said Polo-box domain of less than 3 Å; and

(ii) a program for generating a three-dimensional model of said Polo-box domain of said Plk-1 Polo-like kinase utilizing said coordinates of (i), above; and

(iii) wherein said computer is capable of outputting a representation of said three-dimensional model of said Polo-box domain of said Plk-1 Polo-like kinase to a display or memory.

REMARKS

Applicants thank the Examiner for the helpful telephonic interview conducted on July 8, 2008, at which time proposed amendments to the claims were discussed. Further to that interview, Applicants provide the attached proposed amendment to claim 1. In particular, Applicants amend claim 1 to feature a method for displaying a three-dimensional model of a Polo-box domain of a Plk-1 Polo-like kinase by providing structural coordinates of the Polo-box domain that are sufficient for modeling the binding of a candidate compound to the phosphopeptide binding pocket of the Polo-box domain, generating a three-dimensional model of the Polo-box domain utilizing the structural coordinates, and outputting a representation of the three-dimensional model of the Polo-box domain to a display or memory. The structural coordinates of claim 1 include at least one set of x, y, and z atomic coordinates from Table 5, or a mathematical modification of Table 5 that preserves the relative three-dimensional relationship among the coordinates of Table 5, from a given atom of each of residues His-538, Lys-540, Trp-414, and Leu-491 of the Polo-box domain, or a set of x, y, and z atomic coordinates that have a root mean square deviation of the set of x, y, and z atomic coordinates of the Polo-box domain of less than 3 Å.

Support for this amendment is found throughout the specification as filed and, for example, at page 25, lines 22-27; page 60, line 3 through page 61, line 3; page 77, line 25 through page 79, line 10; and page 167, line 15 through page 169, line 3. No new matter has been added by the present amendment.